

DATE: October 7, 2004

TO: Region Engineers
Region Delivery Engineers
TSC Managers
Resident/Project Engineers
Region Construction Engineers

FROM: Larry E. Tibbits
Chief Operations Officer

John C. Friend
Engineer of Delivery

SUBJECT: Bureau of Highway Instructional Memorandum 2004-25
C&T Support Area Procedures Manuals - 2004 Annual Updates

The Construction and Technology (C&T) Support Area has reviewed and made revisions to the procedures manuals listed below. Questions concerning these revisions or the schedule of future revisions may be directed the Engineer of Specifications. All holders of record on file with the MDOT Publications Office will receive copies of the listed additions and revisions to the manuals.

Current copies of all C&T manuals, including revisions, may be ordered through the Publications office at 517-322-1676, or by sending an e-mail request to MDOT-Publications@michigan.gov. The C&T publications listed below may be viewed, printed, and downloaded from the MDOT homepage, Maps & Publications. Printed copies of these and other C&T publications will continue to be available through the Publications Office and annual updates will be made via this instructional memorandum process. Only the most current content is available on the web site. Superseded or deleted content is available only in printed format.

Density Control Handbook (2001)
File Manual for Construction Records (1998)
HMA Production Manual (2003 with updates)
Michigan Test Methods (2001 with updates)
Materials Quality Assurance Procedures Manual (2001 with updates)
Michigan Structure Inventory and Appraisal Coding Guide (2003)

Construction Manual

- Section 101 Part 6. Davis Bacon
Added discussion of the Davis-Bacon prevailing wage as it relates to all federally funded projects. This information was originally distributed by BOHIM 2004-21, dated June 4, 2004.
- Section 103 Reprinted in its entirety to accommodate the revised contract modification process. This change was originally implemented by BOHIM 2004-14, dated April 12, 2004.
- Section 104 Survey Signing Diagrams have been deleted. These diagrams are maintained by the Design Division and are included in the Design Survey Manual, which is available from the MDOT web site.
- Section 105 Part 1. General Information
The list of C&T manuals has been revised to reflect the combined HMA manual name. This change was originally implemented by BOHIM 2003-15, dated November 6, 2003.
- Section 108 Part 2. Bi-Weekly Construction Progress Report
Deleted, since Form 1120 Bi-Weekly Construction Progress Report is no longer required. This change was originally implemented by BOHIM 2004-03, dated January 12, 2004.
- Section 108 Part 3. Extension of Time and Liquidated Damages
Revised language on acknowledgement and approval of extension of time requests and liquidated damages based on region input.
- Section 109 Part 4. Reduction in Retainage
Incorporated exceptions to allow for reduction in reserve on projects with establishment periods. These exceptions were originally implemented by BOHIM 2004-20, dated June 4, 2004.
- Section 110 Part 1. Engineer Certification Program
Michigan Department of Transportation (MDOT) received permission from the Federal Highway Administration to extend the Three Year Records Certification Program to local government engineers. This change was originally implemented by BOHIM 2004-08, dated February 6, 2004.
- Section 501 Reprinted in its entirety to better format figure layout and update forms references.
- Section 602 Part 2. Concrete Testing Procedures
Changed QC/QA to QA in two places.
- Section 604 Part 6 Calculating Adjustments
Deleted reference to special provision.
- Section 706 Part 6. Surface Preparation Prior to Application of Concrete Coatings
Added new part to incorporate information originally distributed by BOHIM 2003-14, dated October 29, 2003.

Section 812 Part 1. Guidelines for Using Truck Mounted Attenuators
Added new section to incorporate information originally distributed by BOHIM 2004-09, dated February 9, 2004.

Michigan Test Methods

Foreword	Adopted ASTM-style test method revision and editorial change designator.
MTM108-02a	Materials Finer Than No. 200 Sieve in Mineral Aggregates by Washing Corrected typographical error.
MTM 112-04	Determining Aggregate Wear Index (AWI) by Wear Track Polishing Tests Added note pertaining to HMA top course mix blended aggregate AWI calculations as implemented by BOHIM 2003-09, dated May 27, 2003.
MTM 314-04	Theoretical Maximum Specific Gravity of HMA Paving Mixtures Modified test method as implemented by BOHIM 2004-17, dated May 14, 2004.
MTM 315-04	Bulk Specific Gravity and Density of Compacted HMA Mixtures Using Saturated Surface-Dry Specimens Modified test method as implemented by BOHIM 2004-17, dated May 14, 2004.
MTM 321-04	Determining Specific Gravity and Absorption of Fine Aggregates Modified test method as implemented by BOHIM 2004-12, dated March 22, 2004.
MTM 324-04	Sampling HMA Paving Mixtures Behind the Paver Revised to include instructions about when sampling is done with plates and when it is appropriate to use shovel method.
MTM 716-01a	Inspection and Pull Testing of Temporary Concrete Barrier Loops Removed 1996 specifications reference.
MTM 723-04	Watertightness Testing of Culvert and Sewer Joints Up to 24 Inches (600mm) in Diameter Revised gauge accuracy requirement and added units to Table 723-2.
MTM 722-04	Surface Smoothness New name to reflect purpose. Added rolling straightedge procedure.
MTM 725-01a	Determining Ride Quality Using a California Type Profilogram Corrected format and typographical errors.
MTM 726-04	Determining Ride Quality Using a GM Type Rapid Travel Profiler Added references and calculations for International Roughness Index.
MTM 727-01a	Manual Analysis of California Type Profilograms Added MTM designation in footer.
MTM 729-04	Certification of California Type Profilographs Revised to reflect changes made by Ride Quality Task Group.

MTM 730-04 Certification of Profilers
Revised to reflect changes made by Ride Quality Task Group.

HMA Production Manual

The entire manual has been reprinted to accommodate revisions. This reprint will continue to be referenced as the 2003 Edition until such time as the entire manual is revised and reissued.

- Section 1 Mix Design Processing
The following revisions have been made to this section:
- page 1: Changed AASHTO TP4 to AASHTO T312
 - page 12: Added TSR form number
 - page 13: Revised resubmittal information
 - page 15: Added section C under Submittal Time detailing when 5
work day clock can be stopped
 - page 21: Corrected the example problem
- Section 2 Certification of Hot Mix Asphalt Plants
Reprinted to accommodate pages added to other sections. No change has been made in the content of Section 2.
- Section 3 HMA Field Testing
Revisions submitted by the HMA Training Committee:
- page 42: Revised Marshal Air Voids Checklist
 - page 44: Revised Gyratory Checklist
 - page 59: NEW Acceptance Sample Reheating Checklist
 - page 60: NEW Core Handling and Transport Checklist
- Appendices Appendices A, B and C have been reprinted to accommodate pages added to other sections. No change has been made in the content of the appendices.

Materials Quality Assurance Procedures Manual

- Part A4 Disposition of Materials Based on Laboratory Test Results
Corrected reference to "District."
- Part F Qualified Products Evaluation Procedures
Several evaluation procedures have been re-indexed to conform to the 2003 Standard Specifications for Construction. Unless specifically noted herein, there are no significant changes in the procedures themselves.
- Re-index F710.02 to F914.11 Qualification Procedure for Waterproofing Membrane.
- Re-index F712.03I to F712.03J and change name to Qualification Procedure for Adhesive Anchor Systems (for Structural Anchors and Lane Ties).
- Re-index F712.03J1 to F712.03K Qualification Procedure for Mechanical Expansion Anchors.
- Re-index F712.03K5 to F712.03L Qualification Procedure for Mechanical Reinforcement Splicing.

Re-index F713.02B1 to F713.02B Qualification Procedure for Sealant for Perimeter of Beam Plates.

Correct title on F715.02 Qualification Procedure for Low Dust Abrasives.

Re-index F904.03 to F904.03-SP Qualification Procedure for Protective Polymer Coating for HMA Pavement at Snowmobile Crossings.

Added a reference to subsection 403 of the Standard Specifications for Construction in F909.01.

Corrected title and contact phone number in F909.03 Qualification Procedure for Watertight Joint Systems for Sewers and Culverts.

Re-index F909.05 to F909.05-SP Qualification Procedure for Polymer Coated Corrugated Steel Pipe.

Re-index F917.10-SP to F917.12 Qualification Procedure for Grass Seed Varieties.

Re-index F917.13 to F917.15B Qualification Procedure for Mulch Blankets.

Re-index F917.13C to F917.15C Qualification Procedure for Mulch Binders (Tackifiers).

Re-index F919.02C to F919.02B Qualification Procedure for Retroreflective Sheeting; Permanent Signing.

Part G Materials Acceptance Criteria

Added a reference to the evaluation procedure in Part F for each material required to be selected from A Qualified Product List. Additional revisions to this part are summarized in the following table.

Specification Reference	Material Name	Change Made and Reason for Change
603.03B12	Bond Breaker Tape	QPL changed to VI QPL was discontinued
712.03L	Mechanical Reinforcement Splicing	Clarified test requirements to match standard specifications.
902	Coarse and Fine Aggregates	Add remark for Prequalified Aggregate Suppliers Refer to section C-6 for reduced sampling frequency
905.03C	Bar Reinforcement (Epoxy Coated)	Add Epoxy Coater Approved Mfr. requirement
908.15	Anchor Bolts, etc	Sample Frequency changed to 1 per heat; per dia.; per foundation with max 3 per project for Cantilever Foundation only.
909.08A	Bridge Deck Downspouts	Approved Mfr changed to VI
909.08B3	Other Downspouts	Clarify that corrugated or smooth-lined PE pipe is acceptable
909.08C	Bridge Deck Drain Extensions	Remove PVC material
914.07	Dowel Bars	Add Epoxy Coater Approved Mfr. requirement
914.08	Deformed Bars	Add Epoxy Coater Approved Mfr. requirement

Specification Reference	Material Name	Change Made and Reason for Change
914.09	Lane Ties	Add Epoxy Coater Approved Mfr. requirement
922.07	Traf Maint and Control Sign Paddles and Vests	Add Remark: MDOT Guidance Document 10118
Spec. Prov. #7	Polyurea Liquid Pavement Marking Materials	Add to list as a QPL item. This material is specified by frequently used special provision 03SP811(C).

Chief Operations Officer

Engineer of Delivery

BOHD:C/T:JR:kab

Index: Procedures Manuals

cc: C & T Support Area Staff
Real Estate Support Area, M. DeLong
Design Support Area, M. VanPortfleet
Maintenance Support Area, C. Roberts
Traffic & Safety Support Area, J. Culp
C & T Support Area, B. O'Brien
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